



Kevin O'Leary

Project Manager for the National Laboratory project

For the past three years Kevin has played a lead role in the development of the new national laboratory building – to be located in Ballysimon, on the outskirts of Limerick city. The new 3,800 square metre national laboratory will be the first of its kind to be developed by Irish Water and will have the capacity to analyse approximately 1.2 million water and wastewater tests per year. The single storey facility will have organic and inorganic chemistry laboratories, microbiology and parasitology laboratories with all of the required supporting services including utility support areas, gas stores, consumables storage and waste storage areas. It will also have meeting rooms, offices, and reception, canteen and welfare facilities to cater for the staff of about 100 people.

Since Kevin came on board, the project team identified and acquired a 21-acre site, received planning permission, completed a robust detailed design and is currently finalising the procurement assessment for the main construction contract. It is expected that construction will start next year and that the laboratory will be up and running by 2023.

The opportunity to project manage the national laboratory development for the national water utility is one Kevin has seized with both hands. Having studied Structural Engineering in college, the West Cork native joined the Irish Water programme as a graduate eight years ago, when the utility was being set up as Irish Water. Being involved at such an early stage afforded Kevin the opportunity to gain a variety of experience in many different department, including Irish Water Capital Investment, Water Asset Management, Water leakage detection, Internal Governance, Local Authority programmes, Major Capital Projects and Facilities Capital Projects.

Among the projects he worked on during that time was the Cork Lower Harbour Main Drainage Project – one of the largest engineering projects in the country aimed to construct a new 80,000 PE wastewater treatment plant, 15 pump stations, 30km of sewer network and a directional drill crossing to end the discharge of raw sewage into Cork Lower Harbour.

“To be directly involved in the project management of a strategic infrastructure project for Irish Water, it was a phenomenal opportunity. The project offered me valuable experience in key areas like design, procurement, governance, contract strategy, project finance, risk analysis, construction and stakeholder management. Getting that hands on experience of a large scale civil construction project through its full lifecycle really solidified my interest in project management and gave me great confidence in my own skillset going forward,” Kevin explained.

That experience has been put to good use since taking on the role of project manager for the National Laboratory in Limerick. While his own background in structural engineering has come in useful, it is the ability to collaborate and coordinate with designers, experts, and colleagues from a range of disciplines that is key to successful project management.

“As a Project Manager you must build relationships and work effectively with a wide range of different stakeholders in many different disciplines throughout the project – that includes landowners, statutory bodies, design consultants, contractors, architects, laboratory specialists, electrical and mechanical engineers, as well as our internal legal, planning, financial, procurement Health & Safety specialists ” he explains.

Kevin and his team have also been liaising with their counterparts in Scottish Water to learn the lessons from similar scale UK Laboratories and using them to enhance the laboratory design.

“I have worked on a number of large projects in the past which represented significant investments by Irish Water in improving Ireland’s water and wastewater infrastructure. But this time, with the National Laboratory we are actually putting the infrastructure in place to enable Irish Water to make more efficient evidence based decisions for future investments.”

As well as being the first national water and wastewater testing facility developed by Irish Water, the laboratory will be a flagship in many other areas too. Kevin explains that at the heart of the design is a commitment to energy efficiency that will place the building in a league of its own when it comes to sustainability. Regulations stipulate that the building – like all new public buildings – must be built to Near Zero Energy Standards, but that is just the starting point for the Limerick laboratory.

The design team is currently aiming for BREEAM “outstanding” certification – a stamp of approval which recognises the most sustainable buildings that enhance the well-being of the people who live and work in them, help protect natural resources and make for more attractive environments in which to work.

“We are really challenging the energy efficiency of this building by looking at every aspect of the design, through the use of intelligent heating and cooling systems, HVAC, lighting, proximity sensors, energy monitoring systems, and maximising the use of daylight as well as utilising high quality sustainable materials and equipment – we are focussed on creating a spacious, high quality environment that will promote sustainability in the office space as well as the laboratory. It will be a building for people to enjoy working in, and highlight Irish Water’s commitment to future sustainability initiatives” Kevin explains.

Safety is also a top priority – as a laboratory the building is subject to stringent safety standards to safeguard against any hazards associated with chemical, biological or other processes. The Health and Safety to the staff and building occupant was a key factor in all design related reviews and assessments.

For Kevin, overcoming problems and dealing with the many challenges that arise in such a complex project is what attracted him to the profession of engineering in the beginning.

“Even from a young age, I was always working with my hands and helping my father in the work shop, so engineering was a natural choice for me. What I enjoy the most about engineering is the challenge, taking a concept and developing it through the design and construction phases, and finally seeing the end product become operational is very satisfying. My role brings great variety, no two days are the same and it’s important to understand that you’re always learning as an engineer, no matter what the scale of the project.”

And his advice to young people interested in pursuing a career in engineering?

“For anyone interested in engineering – whatever engineering degree you study, your qualification will present you with a great foundation for problem solving, understanding of teamwork and highlight fundamental skills that are very transferrable to a range of engineering careers. I would encourage anyone considering a career in engineering to reach out to Engineers and across the profession and request some insight into projects and the day to day working life of an engineer”.